

**IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION**

KAIFI LLC

Plaintiff,

v.

T-MOBILE US, INC. and
T-MOBILE USA, INC.,

T-Mobile.

Case No. 2:20-cv-281-JRG

JURY TRIAL DEMANDED

FILED UNDER SEAL

REPLY CLAIM CONSTRUCTION BRIEF BY KAIFI LLC

I. TERM 2: “location register that stores location information . . . ”

T-Mobile’s lawyers represented AT&T the last time the ’728 Patent was construed by the Court. They did not attempt to argue that a negative limitation - that the mobile terminal can have no role in storing location information - should be imported into the definition of location register. Claims do not have different meanings in different cases litigated by the same attorneys.

A. The Claim Language Does Not Support T-Mobile’s Construction

When the patentee wanted to require a specific association between components, he knew exactly how to do that. For example, the claims recite “an indoor gateway that includes an indoor wireless connection module *therein*[.]” ’728 Patent, Cl. 1 (emphasis added). There is nothing in the claims specifying the location of the location register.

The suggestion that the location register cannot be hosted on the mobile terminal is belied by Verizon’s proposed construction of this same patent: Verizon asks the Court to construe the claims as being limited to “the determined location stored in *the location register of the data communication terminal*.”¹ The fact that T-Mobile says the location register cannot store any information on the terminal, and Verizon says the location register can only involve data on the terminal points to a more basic reality: both defendants are engaged in claim re-drafting, not construction.

The claim recites that the location register “stores location information of the data communication terminal received through the indoor network or outdoor wireless network.” T-Mobile reads this as requiring that the mobile device generate location information and send it to a physically separate structure for storage - a “location register”- over one or other of the networks. This cannot be the meaning of the claim language because mobile devices do not self-

¹ *KAIFI LLC v. Verizon Communications, Inc., et al*; Case No. 2:20-CV-280-JRG (“Version Case”) Dkt. 54-1, PR 4-3 Joint Chart at 1.

generate location information. For example, the system ID is location information in the register and is *received* by the mobile device from the indoor network. ’728 Patent at 3:34-36 (“indoor gateway...broadcasts the indoor system ID information”). As another example, in the “outdoor wireless LAN network,” it is the “router” which “register[s] the user’s location.” *Id.* at 7:26-50. In these instances, the location information is “received through the indoor network or outdoor wireless network” but it is certainly not being produced by the terminal and then sent away to a physically remote location register. T-Mobile’s expert explains that when a mobile device is on a cellular network, it must communicate with cellular base station to define its location. Ex. A, Excerpts of Deposition of Peter Rysavy (“Rysavy Dep.”) at 89:4-90:3.

T-Mobile’s argument on the implications of the preamble is misplaced. The preamble says nothing about where in the outdoor network the location register is physically situated. A mobile terminal is a node on a network pursuant to the “mobile IP” standard referenced in the patent, and therefore could be on the outdoor network. Dkt. 135-8 (RFC 2002) at 1.

B. The Specification Makes Clear That the Location Register is a Not a Specific Physical Structure

T-Mobile points to a passage in the specification which states “a location register for storing location information transmitted from the wireless internet terminal...” ’728 Patent at 3:9-13. Accepting T-Mobile’s interpretation of this language, the patentee did not include a requirement that the location information be transmitted from the terminal to a physically separate register in the claim.

Other portions of the specification present alternative designs. In one the terminal compares “whether the received ID information of the indoor system is equal to the stored ID information.” ’728 Patent at 3:16-23. It is the terminal itself which stores this location information for this comparison. *Id.* at 3:27-30 (the “data communication terminal . . . terminal

stores registered system ID information”). This information which is stored on the terminal is in “a location register,” as affirmed a few lines later:

a second step of determining whether when indoor system ID information is received by the data communication terminal and the received indoor system ID information is identical to indoor system ID information stored in the location register. ’728 Patent at 3:63-67.

The presence of a location register on the terminal is repeated at other portions of the specification. The “data communication terminal ... stores information on at least one indoor system ID.” *Id.* at 8:47-55. According to the specification, “[p]referably, the indoor location stored in the location register includes the indoor system ID.” *Id.* at 4:23-25; *see also id* at 13:4-7 (“indoor system ID information stored in the PDA”); 12:59-65 (“the PDA . . . determines whether the received indoor system ID information is identical to the stored (registered) indoor system ID information . . .”).

In Figures 1 and 2 the location register is not a single physical structure distinct from any other element of the system: “HA/FA Location Register” in block 80 refers to two different pieces of software that can run on any computer. Rysavy Dep. 82:14-21 (“I do know that in some situations the home agent and foreign agent are at different locations.”).

“FIGS. 1A and 1B are diagrams illustrating examples of the configuration of an outdoor wireless internet network employed in the present invention.” ’728 Patent at 4:28-31. In this embodiment, there is no statement that the location register cannot access information stored on the terminal. There is no limitation regarding the placement of the location register. The specification states: “[t]he location register 80 detects the location of recipient and transfers information to a relevant router.” *Id.* at 7:48-50. Yet T-Mobile is not seeking a construction that the location register must be separate from the router based on this disclosure. Its proposed

limitation directed solely at the relationship between the terminal and the location register is just as improper.

Figure 2 is described as “an embodiment of the present invention.” ’728 Patent at 4:35-38. This language affirms that the embodiment is not limiting.² In this embodiment the location register is “the home agent HA or the foreign agent FA which operates in accordance with the mobile IP protocol.” ’728 Patent at 9:12-15. T-Mobile’s expert claims that this language references an extrinsic standard – the “mobile IP protocol” that existed at the time of the patent. Dkt. 139-2 (“Rysavy Decl.”) at ¶ 47. This document makes clear that there is no limitation on the location of the home agent or foreign agent. It can be on any node of the network. Dkt. 135-8 (RFC 2002) at 10 (“Other placements of the home agent relative to the mobile node’s home location MAY also be possible...”); Dkt 135-9 (“Blackburn Decl.”) at ¶ 61. T-Mobile’s expert testified to exactly what a POSA would take from the “mobile IP protocol” referenced in the specification (and which he extensively relied on in his declaration). Rysavy Dep. at 48:3-24 (“In scanning through the [RFC 2002] specification I didn’t see a discussion of physical implementation of the function.”). Here the “HA/FA” from the “mobile IP protocol” is expressly identified as just one optional embodiment of a location register. It is thus highly relevant that in the “mobile IP protocol” that existed at the filing date of the patent, the “HA/FA” was a software function in which no limits were placed on its location on the network. As T-Mobile’s expert testified, the only requirement of the location register is that it have a “known networking location” and mobile devices have known networking locations. Opening Br. at 11-12 *citing* Rysavy Dep. at 42:23-43:5 and 47:8-14.

² *Teleflex, Inc. v. Ficosa N. Am. Corp.*, 299 F.3d 1313, 1327 (Fed.Cir.2002) (“Even when the specification describes only a single embodiment, the claims of the patent will not be read restrictively...”)

C. The Korean Priority Specification Supports KAIFI's Construction

The Korean priority application (Dkt. 139-7; "Korean App.") explains that in the embodiment shown in Figures 1 and 2, it is the data communication terminal itself that "registers the location." Korean App. at 70 ("Therefore, the data communication terminal registers the location using the Mobile IP registration message when initially connecting to the outdoor wireless LAN network."). This requires the data communication terminal to be involved in the storage and transmittal of location information, totally contrary to the negative limitation T-Mobile seeks to import.

D. Claim Differentiation Supports KAIFI's Construction

Claim 4 states "the data communication terminal informs the location register that the terminal is located indoors by registering its location into the location register." '728 Patent, Cl. 4. T-Mobile argues that Claim 4 requires that the data communication terminal cannot store information used by the location register. But if Claim 4 requires that the location register cannot access stored information at the terminal, this must mean that Claim 1 is broader and encompasses embodiments in which the location register can access data on the terminal. *Intamin Ltd. v. Magnetar Techs., Corp.*, 483 F.3d 1328, 1335 (Fed.Cir.2007) ("An independent claim impliedly embraces more subject matter than its narrower dependent claim.").

E. T-Mobile's Hedging In Its Briefing Shows Why Its Construction Is Improper

T-Mobile appears to acknowledge that its negative limitation excluding the terminal from storing information used by the location register is impossible as a technical matter: "T-Mobile's proposed construction does not preclude the data communication terminal from storing location information prior to transmitting it to the location information." Dkt. 139, T-Mobile's Responsive Claim Construction Brief ("Resp. Br.") at 19. This hedging language shows why the negative limitation T-Mobile is attempting to insert into the claims is not an issue of claim

construction, it is an issue of fact finding. According to T-Mobile, the location register (whose function is to store location information) can access data stored on the mobile terminal, except that it can access this data only by having the phone transmit this information to it. But is T-Mobile saying that the transmittal can only occur when the location data is first generated? For how long can it be stored on the mobile terminal? What happens if the first transmission fails? What happens if the location register only collects the data after a period of time, or only when it needs the information? None of this is claim construction. It is a factual infringement analysis.

F. The Cases T-Mobile Cites Are Not On Point Because The Location Register Is a Software Function, Not a Physical Location

It is settled law in the Federal Circuit that absent an express disclaimer, the recitation of separate elements in a claim does not require that the structures be physically separate. *Exmark Mfg. Co., Inc. v. Briggs & Stratton Corp.*, Case No. 19-1878 (Fed. Cir. Oct. 6, 2020) (“Although claim 1 recites both a “front wall” and a “first flow control baffle,” the separate recitation of these structures does not preclude physical contact between them.”; “Although the figures in the specification depict some distance between the front wall and corresponding flow control baffle, *id.* at Figs. 3–4, these exemplary illustrations are not sufficient to impose a spatial separation requirement on claim language that is otherwise silent as to any required bafflewall spacing.”).

T-Mobile relies on *NTP, Inc. v. Rsch. In Motion Ltd.*, 418 F.3d 1282 (Fed. Cir. 2005) to argue that, because the location register receives/transfers data from the terminal, the two must be separate. But *NTP* clearly states transfer does not require physical separation:

According to RIM, the fact that information must be “transferred,” *i.e.*, moved from one place to another, implies that the RF receiver and destination processor are separately housed. This reading stretches the meaning of “transfer.” As *NTP* points out, a “transfer” of information can equally occur between two entities that are physically housed together. The suggestion that information will be “transferred” between these two entities does not require the physical separation of those entities. *NTP*, 418 F.3d. at 1310.

T-Mobile cites *Becton, Dickinson & Co. v. Tyco Healthcare Grp., LP*, 616 F.3d 1249, 1254 (Fed. Cir. 2010) for the proposition that elements listed separately gives rise to the implication that those elements are physically separate components. Resp. Br. at 9. *Becton*, however, dealt with a mechanical structure of a shielded needle assembly. A location register is not a mechanical structure in the patent. In embodiment 2, the location register is an “HA” and an “FA” which in the standard referenced in the patent are simply software programs running on any computer. Consistent with this, T-Mobile’s expert admits that the location register is not limited to any particular physical structure. Rysavy Dep. at 49:16-23; 55:6-13; *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1339 (Fed. Cir. 2016) (“...improvements to software that, by their very nature, may not be defined by particular physical features but rather by logical structures and processes.”).

In *Huawei Techs. Co. v. Verizon Commc’ns, Inc.*, No. 2:20-cv-00030-JRG, 2021 WL 150442, at *9 (E.D. Tex. Jan. 15, 2021), the claims at issue recited two different types of the same data structure (namely two buffers – a control block buffer and a data block buffer). The plaintiff *Huawei* argued that these two buffers should be treated as one, but the Court rejected that argument, stating that the plaintiff had not “identified any teaching in the ’483 Patent that suggests these two buffers may be a single structure.” *Id.* Here KAIFI is not suggesting that two elements be combined into one. Rather, KAIFI agrees that the claims require two elements: both a data communication terminal and a location register. However, the location register is not a physical component. In the Figures 1 and 2 embodiment it is “HA/FA”, a software program, that can run on any computer. Rysavy Dep. at 82:25-83:6 (a router can implement both HA/FA functions); 17:7-11 and 33:6-11 (general purpose computers can be routers).

T-Mobile's reliance on *Luminati Networks Ltd. v. Code200, UAB*, No. 2:19-cv-00396-JRG-RSP, 2021 WL 425101, at *7 (E.D. Tex. Feb. 8, 2021) is misplaced for the same reason. The dispute in *Luminati* was "whether one component can simultaneously serve as more than one of: the client device, the first server/second server, and the web server." *Id.* As in *Huawei*, the claim recited several types of the same general class of structure (servers) and distinguished them by type (first sever, second server, and web server). In fact, the claims themselves stated that at least the first web server and second server were distinct components: "a second server distinct from the first web server." *Id.* There is no such distinction language in the claims here, and, in any event, as stated above KAIFI is not proposing that the data communication terminal function and location register function be conflated into just one function.

Finally, T-Mobile misreports the content of the expert report on infringement submitted Dr. Kelley in the AT&T Case. T-Mobile claims at multiple points in its brief that "during the AT&T litigation, KAIFI's technical expert, Dr. Kelley, ***expressly disavowed*** the argument that the claimed "location register" in the '728 Patent could be found in the user equipment ("UE")." Resp. Br. at 8, 16 (emphasis in original). In Dr. Kelley's report, he stated exactly the opposite in the paragraph immediately preceding the portion cited by T-Mobile:

The location register is a data memory storage entity that is distributed to these various elements in AT&T's accused instrumentality. There is location register in the UE, that is, the AT&T Phones.

Ex. B, Redacted Pages From Kelly Report at ¶ 447. The misreporting of Dr. Kelley's report is surprising given that the same attorneys that currently represent T-Mobile previously represented AT&T in the AT&T Case, with several of the same individual attorneys from the Gibson Dunn firm working on both cases. These attorneys, including the attorney who signed T-Mobile's claim construction brief, have access to Dr. Kelley's full report, [REDACTED]

[REDACTED] AT&T has obstructed its production by refusing to seek permission from the third parties whose confidential information is in the report.

II. TERMS 4 AND 5: “location information of the data communication terminal”

T-Mobile wants to limit the claims in the following manner: when the outdoor network is accessed the system can only use “locational area” information, and when the indoor network is accessed, the system only uses “indoor system ID information.” But nothing prevents the system from using locational area information in the indoor network as an alternative embodiment. The specification makes clear that the system can employ “location information” or “the location” without limiting location information to any particular mechanism (*e.g.*, “location area” or “system ID”).

The present invention includes a location register for storing location information transmitted from the wireless internet terminal in order to confirm as to whether the user of the wireless internet terminal is located indoors or outdoors. The present invention can switch network paths to provide the roaming service in accordance with the location information stored in the location register.

’728 Patent at 3:9-16; *see also* 8:2-6; 8:9-10; and 8:20-23.

T-Mobile claims the Korean priority application is relevant to construction. The Korean application makes clear that the use of an indoor system ID as the form of the “indoor location” is only a preferred embodiment (“it is preferable”). Korean App. at ¶ 41. Like the US specification, the Korean application makes clear that there is no intent to limit the mechanism for representing the “location” of the device. *Id.* at ¶ 20 (“switching network connection according to the user’s location status or location movement.”; ¶ 24 (“In the present invention, the network path for the roaming service is different depending on the location information stored in the location register.”).

T-Mobile is attempting to read in a single embodiment from the specification into the claims. T-Mobile cites to a passage that discusses Figure 2. But Figure 2 is described as “an embodiment of the invention.” The description of Figure 2 states:

The location information stored in the location register 80 is information on a locational area when the data communication terminal is located outdoors. On the other hand, when the terminal is located indoors, it is indoor system ID information.

’728 Patent at 9:16-20. This is not the only embodiment and is not limiting, as established by 3:9-16. T-Mobile also quotes from the summary of the invention, which contains a passage with similar language to that quoted above. Resp. Br. at 23, quoting ’728 Patent at 3:48-51. But this section begins by expressly stating it just “*an aspect* of the present invention.” (emphasis added). Under Federal Circuit precedent, the language is not limiting. *Teleflex*, 299 F.3d at 1327.

KAIFI’s expert correctly noted that in the Figure 2 example the indoor system ID is the location information used with the indoor network. Blackburn Dep. at 119:14-20. T-Mobile’s expert provided the same testimony. Rysavy Dep. 26:7-13 (“...the patent does not preclude storing both.”). Finally, T-Mobile’s argument that additional construction is necessary because the jury might think the indoor system ID information can be used to represent the location of a device when communicating with the outdoor network turns claim construction into fact finding. For example, if the outdoor network kept a record of the location of a given indoor system, then confirming that the terminal is on that specific indoor system would provide precise location information. [REDACTED]

[REDACTED] It is for this reason that T-Mobile’s expert made clear that location information can either locational area or indoor system ID information, without any of the hedging that T-Mobile is proposing in its construction. Rysavy Dep. 26:7-13.

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Respectfully submitted,

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CERTIFICATE OF SERVICE

I certify that the foregoing document was filed electronically on May 12, 2021 pursuant to Local Rule CV-5(a) and has been served on all counsel who have consented to electronic service.

/s/ Robert Christopher Bunt

Robert Christopher Bunt

CERTIFICATE OF AUTHORIZATION TO FILE UNDER SEAL

I hereby certify that under L.R. CV-5(a)(7)(B) that the foregoing document is filed under seal pursuant to the Court's Protective Order entered in this matter (Dkt. No. 80).

/s/ Robert Christopher Bunt
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